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Leibniz  
Universität  
Hannover

# Oberseminar

## Zahlentheorie und Arithmetische Geometrie

**Prof. Dr. Matthias Wendt**  
(Leibniz Universität Hannover)

### "Classification of torsors in motivic homotopy theory"

In complex geometry, the well-known Oka-Grauert theorem states that the holomorphic and continuous classification of principal bundles over Stein manifolds agree. In the talk, I will present an analogous statement in algebraic geometry, established in recent joint work with Aravind Asok and Marc Hoyois. The main result is that torsors under isotropic reductive groups over smooth affine varieties can be classified by means of motivic homotopy theory. There will be a short explanation of the motivic homotopy theory in the background, but the focus of the talk is going to be on how to apply the general theorem to prove explicit results about classification of projective modules (as done by Asok and Fasel), octonion algebras or stably hyperbolic quadratic forms.

**Donnerstag, 21.04.2016**

**12:00 Uhr, Raum a410**

Hauptgebäude der Leibniz Universität Hannover

Alle Interessierten sind herzlich eingeladen.

Institut für Algebra, Zahlentheorie  
und Diskrete Mathematik